ABSTRACT

A system and method for inspection is disclosed. The design includes an objective employed for use with light energy having a wavelength in various ranges, including approximately 266 to 1000nm, 157nm through infrared, and other ranges. The objective comprises a focusing lens group comprising at least one focusing lens configured to receive light, a field lens oriented to receive focused light energy from said focusing lens group and provide intermediate light energy, and a Mangin mirror arrangement positioned to receive the intermediate light energy from the field lens and form controlled light energy. Each focusing lens has a reduced diameter, such as a diameter of less than approximately 100mm, and a maximum corrected field size of approximately 0.15mm. An immersion substance, such as oil, water, or silicone gel, may be employed prior to passing controlled light energy to the specimen inspected.